615. At the Agricultural Research Station, Hebbal, Bangalore, the work of evolving summer paddy varieties for tank fed tracts of Bangalore, Kolar and Tumkur was in progress.

Agricultural Chemistry.

616. Research was conducted on problems of Agricultural interest with a view to find out improved methods of applying fertilizers and combating crop failures.

617. The total expenditure incurred during the year on Second Plan under, (i) Development of Commercial crops and Horticulture, (ii) Agricultural Education, (iii) Research information, (iv) other Schemes and (v) Soil Conservation amounted to Rs. 72·829 lakhs as against the budget provision of Rs. 114·067.

(iii) FOREST

Forest Area.

618. The Forest area of the State was 13,572·77 (13,573.74) square miles at the end of the year. Out of this, 12,087·59 square miles were in charge of the Forest Department and 1,485·18 square miles in charge of the Revenue Department.

Protection of Forests.

619. Protection of Forests mainly consisted of prevention of smuggling of timber, sandalwood and other forest produce and of prevention of damage to teak, sandalwood and other valuable species in the forests from fire and animals.

Timber Smuggling Prevention.

620. The special mobile unit consisting of the Forest and Police staff employed in Shimoga circle detected 213 cases, of which 118 were settled departmentally leaving a balance of 95 cases at the close of the year. A sum of Rs. 61,833-51 nP was realised by way of compensation and value of timber invloved in the cases.

Spike Diseases.

621. Spike disease continued to cause heavy damage to sandal trees. Incidence of this disease was noticed during the year in certain parts of Coorg, Mysore, Hassan, Chickmagalur, Tumkur, Bangalore and Kolar Districts. Investigation about this disease is one of the main items of research at the Forest Research Laboratory, Bangalore which is now a Government of India regional Research Centre in the South.

622. Sandalwood trees affected by spike and containing heartwood were uprooted and burnt. Such of the trees as were carrying the disease but containing heartwood were

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uprooted and removed to the Sandal Kotis. Three Killer solution was applied in a few cases to prevent the spread of disease in North Coorg District.

Animal Pests.

623. As usual occasional damage to nurseries and young plantations was caused by bisons, sambars, pigs, wild elephants, wild bears and monkeys.

624. No attack by fungus was reported during the year.

Silviculture:

625. Various types of silvicultural systems were practised in the State mostly in conformity with the prescriptions of the Working Plan and Working Scheme, *viz.*, (*a*) Selection, (*b*) Selection-cum-improvement, (*c*) Improvement (*d*) Coppice with standard and clear felling.

Exploitation:

626. The exploitation of timber, firewood and bamboos was generally done in accordance with the prescriptions of working plans or approved synopsis. Areas coming under submersion under the river valley projects of irrigation and power were taken up for exploitation in preference to other areas. Sandal, dead and overmatured trees were extracted departmentally. The exploitation of minor forest produce was allowed to be done by private agency, as usual.

Exploitation by Government Agency.

Major Forest Produce.

627. *Timber* :—The timber was extracted from the coupes and plantation areas through the agency of logging contractors who did the felling or marked trees, converted the felled trees into logs, poles and sleepers and delivered them (prepared materials) at the sanctioned or prescribed rates at the prescribed sale depots for meeting the demands of the public as well as the Railways, Government Departments and other indentors.

628. Special Sleeper contracts were also given in Kanara Northern and Eastern divisions, in order to meet ever increasing demand of the Indian Railways. The material that remained after extraction of the depot specification was sold by public auction on the basis of sharing the sale proceeds with the contractors on fixed percentages in lieu of wages for extraction. Timber yielding trees outside the State or the Reserved Forests were extracted from the lands, granted by the Revenue Department, for cultivation.

629. The details of materials so harvested during the year are furnished below :—

Timber harvested		*Timber disposed*	
Teak	13,59,075 Cft.	Teak	8,13,156 Cft.
Non-Teak	35,93,888 Cft.	Non-Teak	19,52,232 Cft.
Teak Poles	1,12,367 Nos.	Teak Poles	91,053 Nos.
Other Poles	9,500 Nos.	Non-Teak Poles	10,350 Nos.
Sleepers	6,42,303 Nos.	Sleepers	6,36,451 Nos.
Teak Ballies	8,329 Nos.	Teak Ballies	nil

Firewood and Charcoal.

(ii) *Firewood and Charcoal* :—The total collections of firewood and charcoal during the year were :—

1. Shimoga Circle ... 31,546 tons of fuel and 18,421 tons or 5,52,643 bags of charcoal.
2. Belgaum Circle ... 1,296 tons of firewood.
3. Coorg Circle ... 706 lorry loads firewood and 2,450 bags of charcoal.

Bamboos.

630. Bamboos both *Bambusa arundinacea* or the big bamboo and *Dendracalamus strictus* or the small bamboo were extracted departmentally and supplied to the Mysore Paper Mills Ltd., and the Mysore Iron and Steel Works, Bhadravathi, by the Fuel Supply Division, Bhadravathi.

631. For augmentation and maintenance of steady supply of bamboos to meet the growing demands of the Mysore Paper Mills, a Bamboo Sub-Division under the Fuel Supply Division was formed which started functioning during the year.

Sandalwood.

632. The exploitation of Sandalwood was confined to dead, mature and spiked (disease) sandal trees and all trees yielding heartwood in the submersion and irrigable areas of river valley projects.

633. The revenue realised by the sale of sandalwood in retail and auction sales and through the Agents was Rs. 21,25,757-91 and the amount realised at the provisional rate of Rs. 3,750 per ton, from the Sandal Oil Factories was Rs. 76,71,000—00.

Other Minor Forest Produce.

634. Three thousand two hundred and fortyfive pounds of Prosopis juliflora seeds (including 2,000 lbs. collected during the year) were disposed off by Bellary Division.

Exploitation by Private Agency.

Timber.

635. (*a*) *Major Forest Produces* :—The right of removal of standing timbers by the matchwood and plywood companies

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from the several concession areas at negotiated rates was allowed as usual.

636. The total quantities of timber collected, and removed by the several purchasers, free grantees and right and privilege holders during the year were :—

By Purchasers	...	... 56,45,247 Cft.
Free Grantees	...	... 66,840 Cft.
Right and Privilege Holders		... 2,40,092 Cft.

637. Considerable quantities of firewood, charcoal and bamboos were also removed during the year, by the purchasers, free grantees and the right and privilege holders.

638. (*b*) *Minor Forest Produce* :—The cane blocks of North Coorg Division were leased for a sum of Rs. 8,000 and in South Kanara Division the right to collect them from the Reserved Forest was leased out to contractors except some portions of which were proposed to be allotted to basket makers' co-operative societies.

639. The right to collect and remove the canes in Shimoga Division particularly in Agumbe Range was continued in favour of the Rattan and other allied Arts and Craftsman Co-operative Society, Agumbe, during the year.

640. *Other Minor Forest Produce* :—The right of collection of various items of minor forest produce in Government forests, Government unoccupied lands, etc., was sold either annually or biennially or on permits. The important items of the minor forest produce sold were honey, bees-wax, myrobalams, sheegekai, tumri leaves, thangadi and kakke bark seeds and leaves of *pangamia glabra*, catechu, fruits of *capparis mooni* (lutikai), etc.

641. The total revenue realised on account of the removal of the minor forest produce was Rs. 15,93,495—21.

Free Grazing

642. Free grazing of cattle in forests which was in vogue in old Mysore State except in Bellary Division was extended throughout the State during the year.

Forest Industries.

643. The Government industrial undertakings namely, the Government Central Wood Working and Furniture Workshops, Tumkur, Government Wood Preservation Plant, Bhadravathi, Government Saw Mills at Shimoga, Dandeli, Joida, Alnavar and Kirwatti (private Mills working for Government), Murkal in Coorg District, Integrated Wood Industries, Shimoga, Wood Seasoning

Kiln, Dandeli, Wood Preservation Plant at Dandeli, Creosote Treatment Plant at Hunsur in Mysore District and other industries dependent on the Department for raw materials namely, the Mysore Commercial Union, The Mysore Iron and Steel Works. Bhadravathi, The Mysore Paper Mills (P) Ltd., Bhadravathi, Mysore Match Company Ltd., Shimoga, Sandalwood Oil Factory, Shimoga, Rattan and other allied Arts Craftsman Co-operative Society, Agumbe, Hunsur Plywood Works, Hunsur, The West Coast Paper Mills Ltd., Ferro-Manganese Factory, Chip Board Plant, at Dandeli, Hindumata Industries Ltd., Hubli etc., functioned satisfactorily during the year.

Development Schemes.

644. With a view to achieving all round Forest Development in general and to conserve the Forest wealth in particular, Development Schemes costing Rs. 50.80 lakhs were drawn up for implementation during the year. The schemes covered were mostly afforestation Schemes envisaging raising of plantations of teak, matchwood, cashew, fuel and other miscellaneous species, besides rehabilitating the degraded forests with suitable fuel species. Under the Soil Conservation Scheme, the areas subjected to soilerosion were improved by Soil Improvement work.

Wild Life Preservation.

645. The Game Sanctuaries at Bandipur, Nagarhole and Dandeli were improved by way of construction of roads, trackmetalling the road etc.

646. The Department bestowed considerable attention to the protection and preservation of wild fauna. In addition to general protection, the Venugopal Wild Life Park (310 sq. mls) of which the Bandipur Game Sanctuary is the SANCTUM SANCTORUM, the Jauger Valley Wild Life Park, the Nagarhole Game Sanctuary (110 sq. mls), the Dandeli Sanctuary (80 sq. mls), the Ranganthittoo Bird Sanctuary (188 sq. mls) and the several Tiger Preserves were maintained and improved.

Wild Life Week.

647. As in previous years the Wild Life Week was celebrated all over the State. Illustrated literature, explaining the importance of Wild Life for maintaining the balance of nature and the need for the preservation of Wild Life, was distributed to the public. Radio talks and lectures were also arranged to the students of various educational institutions and the public. At all the lectures

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and the meetings the sacred oath prescribed by the Government of India was taken.

Management of Inam and Private Forests.

648. (*a*) *Sagre Inam Forests*:—Sagre Inam Forest of 950 acres continued to be managed by the Department.

(*b*) *Biligiri Rangan Temple Forests*:—This forest with an area of 35.375 sq. miles continued to be under the management of the Department. A quantity of 4,999 Cft. of timber was collected, of which 4,805 Cft. was carted to the Depots for sales. The total revenue realised from the forest during the year was Rs. 45,540-70.

Action had been taken to declare these forests as State Forests.

(*c*) *Kalasa Inam Forests*:—The Inam forest of Kaleswaraswamy Temple in Chickmagalur Division comprising an area of 6,769 acres and 30 guntas continued to be under the management of the Department. Sandalwood was extracted from this Forest.

Elephants.

649. The total number of elephants including calves on the roll at the close of the year was 109.

Exhibitions.

650. The Department participated in the Mysore Dasara Exhibition, the District and Taluk Exhibitions and was also represented at the World Agricultural Fair at New Delhi.

Vanamahotsava.

651. As in previous years, the Department participated in the celebration of Vanamahotsava at the District, Taluk and Hobli levels. Several lakhs of seedlings of teak and other species like Eucalyptus, casuarina, neem, mango, sissoo, tamarind, jack, etc., were supplied to the public, local bodies and Government Departments.

652. Lectures on the planting of trees and increasing the forest wealth of the nation were delivered by the officers of the Forest, Revenue and other Departments.

Welfare activities of Backward Classes and Scheduled Tribes.

653. (i) As in previous years, deserving people of Bhatkal, Honnavar and part of Kumta Taluk, majority of whom belong to Backward Classes who use the powdered pith of palms as food, were granted talipalms from forests, free of cost.

(ii) The removal of Matti bark and other indigenous tanning material free of cost and canes and bamboos at concessional rates as well as free of cost, was allowed to the Rohits of Kanara Eastern Division, for use in cottage industries.

(iii) An area of 305.78 sq. mls. of forests out of the Reserved Forests in the Kanara Western Division has been set aside exclusively for the exercise of privileges and a further area of 3·96 sq. mls. of forest area in Bhatkal Range has been set apart for rotational cultivation, for promoting the welfare of these poor people.

(iv) Removal of Matti bark by the Fishermen and Harijans at a concessional rate of six naye paise per maund of 40 lbs. was allowed in Kanara Western Division, in addition to the removal of Harda by Rohits free of cost.

(v) In return for the services rendered in planting and tending operations, Agri-Silvi cultivation by the villagers was allowed in the plantation areas cleared of tree growth and regenerated with teak and the ragi and other crops harvested in the area were allowed to be removed free of cost.

(vi) In order to encourage the co-operatives for the amelioration of forest labour, the Forest Labourers' Co-operative Societies were allotted certain forest works in addition to the coupes and regeneration areas which they purchased on the tenders. The societies which purchased the coupes and regeneration areas were allowed time for payment of the purchase value on realisation of proceeds of the sales of timber derived from the coupes.

(vii) The lands granted to Backward Class people on Agri-Silvi system during the previous year in Dharwar Division were continued in their possession. The question of giving the lands to the occupants themselves on their willingness to pay a rent of Rupees two per acre according to the decision of the Government was being taken up and pursued.

(viii) Free removal of timber and bamboos was permitted from the forests in Bhadravathi Division to the members of the Scheduled classes for construction of their houses.

(ix) The Tribal School run at Kalhalla in South Coorg Division for the benefit of the children of the tribal people was continued during the year at a cost of Rs. 3,045. Free mid-day meals, slates and books, clothes etc., were provided to the children of the school.

(x) 17 Kunibi colonies consisting of 120 families (339 males and 317 females) continued in Sagar Division. As

Kunibi Settlement.

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usual these Kunbi settlers continued to render service in the execution of the various forest operations in the Division.

Finance.

654. The revenue for the year 1959-60 was Rs. 6,45,22,819 (Rs. 5,67,93,912). The increase in revenue during the year was under all heads including the recovery of the old outstandings and also due to better prices realised. The exploitation of timber for sale departmentally in the depots and for supply to the other Government departments such as the Railways, the Defence services, the Public Works Department, the Industrial Concerns, was on the increase every year.

655. The total expenditure under all heads for the year amounted to Rs. 2,53,11,871 (Rs. 2,04,43,373). The net revenue surplus for the year was Rs. 3,92,11,008 (Rs. 3.63,50,359).

656. The common Forest Act for the New Mysore State was compiled and was under the consideration of Government.

657. There was an ever increasing flow of applications for release of lands from the State Forests in spite of the fact that several lakhs of acres of assessed and unassessed waste lands were available outside the reserves. Release of Forest lands for cultivation is opposed to the general principle of soil and moisture conservation especially in view of the forest area being as low as 2 percent in some maidan areas and 34 per cent in Malnad as against the minimum requirement of 20 percent in Maidan and 60 per cent in Malnad areas, according to the National Forest Policy of the Government of India.

(iv) Co-operation

(1st July 1959 to 30th June 1960)

658. The Co-operative Movement in the State has recorded a steady progress during the year. The Co-operatives met the credit requirements of agriculturists and others playing their part in raising the tempo of agricultural production.

659. The Co-operatives have entered the Community Development and national extension service blocks and are